MIDWEST OZONE GROUP COMMENTS ON EPA'S MARCH 27, 2018 MEMORANDUM ENTITLED "INFORMATION ON THE INTERSTATE TRANSPORT STATE IMPLEMENTATION PLAN SUBMISSIONS FOR THE 2015 OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS UNDER THE CLEAN AIR ACT SECTION 110(a)(2)(D)(i)(I)"[1]

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On March 27, 2018, EPA issued a memorandum entitled "Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air quality Standards Under the Clean Air Act Section 110(a)(2)(D)(i)(I)". This memorandum offers much needed guidance on how a state might develop or review its State Implementation Plan (SIP) to address the interstate transport requirements of the Clean Air Act as stated in Section 110(a)(2)(D)(i)(I). The memorandum also provides a list of flexibilities in analytical approaches for the developing a good neighbor SIP for further discussion between EPA and the states. Significantly the memorandum acknowledges that it has received suggestions from not only from states, but also stakeholders identifying specific approaches that may merit further consideration.

The Midwest Ozone Group (MOG), as one of the stakeholders to have suggested flexibilities for EPA to consider in the development of Good Neighbor SIP guidance, welcomes the opportunity of this letter to acknowledge the March 27, 2018 guidance and to offer additional proposals for your consideration suggestion. In doing so we will acknowledge the Presidential memorandum dated April 12, 2018, which offers some extremely valuable direction to several issues that have a direct impact on the development of approvable Good Neighbor SIPs.

MOG is an affiliation of companies, trade organizations, and associations that draw upon their collective resources to seek solutions to the development of legally and technically sound national ambient air quality management programs.[2] MOG's primary efforts are to work with policy

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[2] The members of and participants in the Midwest Ozone Group include: American Coalition for Clean Coal Electricity, American Electric Power, American Forest & Paper Association, Ameren, Alcoa, Appalachian Region Independent Power Producers Association (ARIPPA), Associated Electric Cooperative, Citizens Energy Group, Council of Industrial Boiler Owners, Duke Energy, East Kentucky Power Cooperative, FirstEnergy, Indiana Energy Association, Indiana Utility Group, LGE / KU, Ohio Utility Group, Olympus Power, and City Water, Light and Power (Springfield IL).

makers in evaluating air quality policies by encouraging the use of sound science. MOG has been actively engaged in a variety of EPA issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules, NAAQS standards, petitions under 176A and 126 of the Clean Air Act, implementation guidance, and the development of Good Neighbor state implementation plans. MOG members and participants operate a variety of emission sources including more than 75,000 MW of coal-fired and coal-refuse fired electric power generation in more than ten states. They are concerned about the development of technically unsubstantiated interstate air pollution rules and the impacts on their facilities, their employees, their contractors, and the consumers of their products.

1. **EPA should specifically recognize the benefits of having multiple data sets containing modeling that may be relied upon by states in the development of Good Neighbor SIPs.**

MOG welcomes the following EPA statement about the ability of states to be able to rely upon alternative, equally credible, modeling data:

> States may consider using this national modeling to develop SIPs that address requirements of the good neighbor provision for the 2015 ozone NAAQS. When doing so, EPA recommends that states include in any such submission state-specific information to support their reliance on the 2023 modeling data. Further, states may supplement the information provided in this memorandum with any additional information that they believe is relevant to addressing the good neighbor provisions requirements. States may also choose to use other information to identify nonattainment and maintenance receptors relevant to development of their good neighbor SIPs. If this is the case, states should submit that information along with a full explanation and technical analysis.

The March 27, 2018, memorandum in Attachment B sets forth both the agency's "3 x 3" modeling data first published in its memorandum of October 27, 2017, as well as its modified "No Water" approach. In addition to these two EPA data sets, MOG has also produced modeling data similar to EPA "3 x 3" modeling based upon a 12km grid which has been suggested by EPA in its proposed approval of the 2008 ozone NAAQS Good Neighbor SIP for Kentucky.[3]

We welcome EPA's development of a March 27, 2018, "no water" set of predictions and urge that EPA allow states to be able to rely not only upon EPA's October 27, 2017 "3x3" data set which is currently being relied upon for the approval of Good Neighbor SIP's, but also EPA's "no water" simulation, or any other alternate modeling analysis conducted in a technically credible manner consistent with EPA's attainment demonstration guidance and that meets performance criteria utilized by the agency. This, for example, could be particularly critical to the Milwaukee and Sheboygan monitors that are predicted to be in attainment with the 2015 ozone NAAQS using the "3x3" data but not with the "no water" data simulation. Similarly, EPA should recognize that the

[3] 83 Fed. Reg. 17123 (April 18, 2018)

March 27, 2018 "no water" data shows the Harford monitor to be in attainment with the 2015 ozone NAAQS even though other equally credible modeling simulations demonstrate nonattainment at this monitor. The uncertainty involved with selecting a single modeling simulation to base such significant policy decisions, such as Good Neighbor demonstrations, should be weighed against the opportunity to select other platforms and simulations with consideration given to state methods that rely on multiple sources of data when found to be of technical merit.

EPA should specifically acknowledge the merit of 4km modeling as an alternative to its "no water" methodology. MOG's 4km modeling results demonstrate that all nonattainment monitors in the East attain the 2015 ozone NAAQS with the exception of Harford MD which has a predicted design value of 71.1 ppb using that 4km modeling. Modeling of this type using a finer grid is specifically recommended under existing EPA guidance which states:

> The use of grid resolution finer than 12 km would generally be more appropriate for areas with a combination of complex meteorology, strong gradients in emissions sources, and/or land-water interfaces in or near the nonattainment area(s).[4]

The guidance goes on to note that in addition to the "primary" modeling analysis, there are various other models, model applications, and tools that can be used to supplement the results of a modeled attainment test. These include the use of multiple air quality models / model input data sets (e.g., multiple meteorological data sets, alternative chemical mechanisms or emissions inventories, etc.). Multiple model configurations can be used to estimate sensitivity and uncertainty of future year design value predictions. For results to be most relevant to the way the agency recommends models be applied in attainment demonstrations, EPA notes it is preferable that such procedures focus on the sensitivity of estimated relative response factors (RRF) and resulting projected design values to the variations inputs and/or model formulations.

For day-to-day forecasts, modelers aim to choose a model with performances close to field observations. The ultimate objective is to deliver a forecast with highest performances to observational conditions. Using this logic, different model configurations could be combined in a way to take the best components of each simulation (compared to performance) for each location and time-step in an analysis. No single model configuration or simulation will be most appropriate for every location under every given condition. The use of multiple model simulations using scientifically credible approaches falls within EPA's attainment modeling guidance for weight-of-evidence (WOE) analyses supporting an attainment SIP revision.

An ensemble-like approach using multi-model predictions aims to minimize the uncertainty typically involved with single simulation reliance and done correctly, can provide less uncertain concentrations than any individual simulation. When available, States should be allowed to consider

[4] http://www3.epa.gov/scram001/guidance/guide/Draft_O3-PM-RH_Modeling_Guidance-2014.pdf

using multiple models and credible applications of these modeled results in preparing SIP attainment demonstrations and predicted future year concentrations.

2. EPA should provide guidance to the states on need to properly account for both on-the-books and on-the-way emission reductions related to local sources in areas with problem monitors.

MOG very much welcomes EPA's recognition of the importance of the assessment of local emissions as one of the added flexibilities being considered. Specifically, EPA offers the following description of this flexibility:

> Assess current and projected local emissions reductions …

Because the modeling currently being used by EPA, states and stakeholders relies on inventories that do not reflect all of the current local control programs or known unit operations that will affect predicted ozone air quality, EPA should not only encourage states and stakeholder to offer updated inventories to account for on-the-books controls, but should alsoencourage states to take account of anticipated changes in unit retirements not already recognized by the modeling inventory being employed.

This issue is important to all states, but particularly to upwind states which must determine whether they must commit to additional emissions reductions as they prepare to submit approvable Good Neighbor State Implementation Plans to address the 2015 ozone NAAQS to EPA by the October 2018 deadline. Only through a full assessment of these local emissions reductions can EPA determine whether there are any bases for the imposition of additional emissions controls in upwind states. This is because additional control requirements in upwind states can only be legally imposed if there is a continuing nonattainment area.[5]

As shown by MOG's modeling and analyses (Outlook For Future Ozone Transport Program Design at http://midwestozonegroup.com/index.html), when EPA's current emission inventory is modeled using a 4 km grid in critical portions of the East, all monitors in the East would achieve attainment of the 2015 ozone NAAQS by 2023 with the sole exception of the Harford Maryland monitor – which has a modeled ozone concentration of 71.1 ppb, only 0.2 ppb above the concentration that would demonstrate achievement of the 2015 ozone NAAQS. EPA's emission inventory, however, does not include a significant number of legally mandated on-the-books and on-the-way local controls that are likely to further reduce the emission of ozone precursors that could bring all monitors in the East into attainment with the 2015 ozone NAAQS. Moreover, EPA's current emission inventory does not take into consideration unit retirements, fuel switching and modifications that have been announced since that inventory was last updated.

[5] *EME Homer et.al. v EPA*, 134 S. Ct. at 1608.

MOG's has previously documented that downwind states have many options to reduce their own NOx and VOC contributions.[6]

Maryland has already recognized the need to adopt and implement programs to control emissions from local sources in Maryland and the Northeast. For example, as recently as December 2017[7], the Maryland Department of the Environment identified a series of local controls that it believed would further reduce ozone concentration in the Northeast, including:

- New rules by New York on small generators;
- New Ozone Transport Commission initiatives involving idle reduction;
- After market catalysts on mobile sources;
- Electric and other zero emission vehicles;
- Maryland rules on municipal waste combustors; and
- Maryland's Idle Free Initiative.

In addition, it is significant that the Connecticut Department of Energy and Environmental Protection, Bureau of Air Management has reached the conclusion[8] that attainment in the Northeast cannot be achieved without local controls as is illustrated by the following statement:

> To reach attainment in the NY-NJ-CT nonattainment area, HEDD emissions need to be addressed in all three state portions of the area.
> …
> In sum, to address Connecticut's ozone nonattainment, and Connecticut's good neighbor obligations to downwind states, peak day emissions must be reduced. Thus, "beyond RACT" measures may be warranted for HEDD units on HEDD to meet the state obligation of attainment of the ozone NAAQS as expeditiously as possible.

While Connecticut has called for beyond RACT controls on HEDD units and Maryland has cited New York's rule addressing small generators, the New York State Department of Environmental Conservation has actually conducted an air quality assessment of that rule in which it has concluded[9], that ozone concentrations could be reduced by as much as 4.8 ppb – an extremely

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[6] Alpine Geophysics "Relative Impact of State and Source Category NOx Emissions on Downwind Monitors Identified Using the 2017 Cross State Air Pollution Rule Modeling Platform", Alpine Geophysics, LLC, January, 2016. http://www.midwestozonegroup.com/files/RelativeImpactofStateandSourceCategoryNOxEmissionsonDownwindMonitorsIdentifiedUsingthe2017CrossStateAirPollutionRuleModelingPlatform.pdf .

[7] See: "A Path Forward for Reducing Ozone in Maryland and the Mid-Atlantic States, Driving With Science", Tad Aburn, Air Director, MDE, December 11, 2017 (slides 60 and 61). http://midwestozonegroup.com/files/Final_Path_Forward_2017_AQCAC_121117.pptx

[8] "Reasonably Available Control Technology Analysis under the 2008 8-Hour Ozone National Ambient Air Quality Standard", dated July 17, 2014, http://www.ct.gov/deep/lib/deep/air/ozone/ozoneplanningefforts/ract_2008_naaqs/2014-07-17_-_ct_final_ract_sip_revision.pdf

[9] "Background, High Electric Demand Day (HEDD) Initiative", New York Department of Environmental Conservation, undated but presumed to be in 2017. http://midwestozonegroup.com/files/New_York_Peakers.pptx

significant improvement in ozone air quality (for perspective, 0.7 ppb represents a significant contribution relative to the 2015 ozone NAAQS) in a portion of the East that has historically had high ozone concentrations.

It is imperative that newly announced unit retirements, fuel switching and modifications as well as all emission control programs that will be or are required to be adopted and implemented prior to 2023 be considered and the resultant emissions reductions quantified for use in the good neighbor SIP modeling required by October 2018. A recent review of generating units Wisconsin has identified the following EGUs that will be shut down prior to 2023, and yet, EPA's modeling platform[10] includes their emissions and contribution to ambient ozone concentrations:

Facility	ORIS	Boiler	2016 Ozone Season NOx (tons)	2023 Ozone Season NOx (tons)	Adjusted from 2016	Reason for Adjustment
Edgewater (4050)	4050	4	402.3	201.2	Y	Coal to Gas Conversion
Pleasant Prairie	6170	1	552.2	552.2		
Pleasant Prairie	6170	2	402.8	402.8		
Pulliam	4072	7	73.8	73.8		
Pulliam	4072	8	224.0	224.0		

Failure to consider the effects of those programs and unit retirements destines any such modeling to over-predict ozone concentrations and risk the unlawful imposition of emission control requirements on sources in upwind states. Further, it is highly likely that the inclusion of these emissions reduction will result in all areas demonstrating attainment of the 2015 ozone NAAQS without the need for further additional regional or national emissions reductions programs.

With respect to EPA's call for an assessment of projected emission reductions, it is significant that when an area is measuring nonattainment of a national ambient air quality standard (NAAQS), the Clean Air Act (CAA) requires that the effects and benefits of local controls be considered first, prior to pursuing regional or national controls. CAA §107(a) states that "[e]ach State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State." In addition, CAA §110(a)(1) requires that a state SIP "provides for implementation, maintenance, and enforcement" of the NAAQS "in each air quality control region . . . within such State." Moreover, by operation of law, additional planning and control requirements are applicable to areas that are designated to be in nonattainment.

[10] ftp://newftp.epa.gov/air/emismod/2011/v3platform/reports/2011en_and_2023en/2023en_Engineering_Analysis_Unit_File.xls

We note with interest the affidavit submitted by Assistant Administrator McCabe in the litigation involving the challenge to the Kentucky Good Neighbor SIP in which Assistant Administrator McCabe stated:

> In order to establish the appropriate future analytic year for purposes of the EPA's analysis, including the air quality modeling, the EPA considers several factors related to anticipated compliance timing of the rulemaking. It is essential to consider how best to align the future analytic year with compliance timing in order for the assessment of significant contribution to nonattainment and interference with maintenance to align with the identified air quality challenge. Compliance timing is informed by the D.C. Circuit's decision in *North Carolina*, where the court held that the EPA should align implementation of its interstate transport rules with a date by which states are required to demonstrate attainment with the applicable NAAQS. 531 F.3d at 911-12. However, the determination as to how to align implementation with the attainment is not ready-made. Rather, the EPA considers several factors including the relevant attainment dates for the NAAQS, timelines necessary for installing appropriate control technologies, whether or not emission reductions preceding the relevant attainment dates (if possible) would further assist downwind areas in demonstrating attainment and maintenance of the NAAQS, or in the event that emission reductions are not feasible by the relevant attainment deadline, what date is as soon as practicable for EPA to require reductions following the relevant attainment deadline.[11]

Equally significant is the following statement appearing in EPA's brief in the same litigation:

> Nonetheless, EPA is mindful of the need to align implementation of emission reductions in upwind states with the applicable attainment dates in downwind areas, as instructed by the court in *North Carolina v. EPA*, 531 F.3d 896, 911-12 (D.C. Cir. 2008).[12]

MOG strongly urges the agency to follow the court holding *North Carolina v. EPA*, 531 F.3d 896, 911-12 (D.C. Cir. 2008), and to provide the states with guidance to align implementation of Good Neighbor SIPs with the date by which states are required to demonstrate attainment with the applicable NAAQS. As the focus on attainment of the 2015 ozone NAAQS continues, there must be an official recognition that air quality will continue to improve between the 2018 due date for Good Neighbor SIPs and the 2023 attainment deadline as a result of CAA programs including Federal Measures, federally mandated state RACT rules, nonattainment infrastructure SIPs, and Good Neighbor SIPs. While the Federal measures, state RACT rules, and nonattainment infrastructure SIPs

[11] Declaration of Janet D. McCabe, at ¶81.

[12] Defendant EPA's Reply to Plaintiff's Opposition to EPA's Cross-Motion for Summary Judgment, Sierra Club v. EPA, Case No. 3:15-cv-JD, Sept. 22, 2015) ED No. 68, p. 7.

will all significantly improve air quality in many nonattainment areas, those programs will all be implemented after the Good Neighbor SIPs are due, which means that states will need to carefully consider how best to address those air quality improvements as part of their Good Neighbor SIP submittals.

The failure to include the benefits of these programs in Good Neighbor SIPs will result in over-control of upwind states, which MOG asserts is illegal given the Supreme Court decision in *EPA v. EME Homer City Generation* in which stands for the proposition that EPA cannot require an upwind state to reduce its output of pollution by more than necessary to achieve attainment in every downwind state. The Good Neighbor SIP is a "down payment" on attainment and not a stand-alone attainment program. Numerous control programs will take effect now and between the 2018 Good Neighbor SIP due date and the 2023 attainment deadline. The Good Neighbor SIPs that are due in 2018 must take into account the impact of legally mandated controls on air quality by the attainment date to avoid violating the CAA prohibition against over-control.

3. EPA should offer more specific guidance on how to account for international emissions.

MOG applauds both the EPA memorandum of March 27, 2018, and the President's Memorandum of April 12, 2018, for identifying international emissions as a significant matter in need of resolution. Fundamental to addressing this issue is the statement of fact that EPA includes in its March 27, 2018 memorandum:

> EPA recognizes that a number of non-U.S. and non-anthropogenic sources contribute to downwind nonattainment and maintenance receptors.

Beyond mere recognition of the process established under Clean Air Act Section 179B, EPA should immediately acknowledge that known portions of a source apportionment analysis directly attributable to international emissions (such as the Canada/Mexico category) may be subtracted from the design value of a monitor to determine whether it is a problem monitor for purposes of the development of a Good Neighbor SIP. In addition, and pending more refined analysis) we urge that EPA apply a weight of evidence approach to determining some default percentage of the initial conditions and boundary condition portion of the source apportionment analysis that should be deemed to be international in nature to be subtracted from design values to identify problem monitors. Finally, with respect to 179B petitions addressed by the President's April 12, 2018 memo, EPA should provide for the parallel processing of 179B petitions and Good Neighbor SIP's that acknowledge any such petitions.

Set forth in the table below are the results of EPA's most recent source apportionment analysis[13] that for key monitors the significant contribution made by Canada/Mexico emissions (entirely international) and by Boundary Conditions (significantly international).

			MDA8 Design Value (ppb)				Contribution (ppb)	
Monitor ID	**State**	**County**	**2009-2013 Avg DV**	**2009-2013 Max DV**	**2023 Avg DV**	**2023 Max DV**	**Can + Mex**	**IC / BC**
90010017	Connecticut	Fairfield	80.3	83	68.9	71.2	1.64	16.73
90013007	Connecticut	Fairfield	84.3	89	71.0	75.0	1.35	17.17
90019003	Connecticut	Fairfield	83.7	87	73.0	75.9	1.37	17.00
90099002	Connecticut	New Haven	85.7	89	69.9	72.6	1.58	17.17
211110067	Kentucky	Jefferson	85.0	85	70.1	70.1	0.66	21.94
240251001	Maryland	Harford	90.0	93	70.9	73.3	0.79	15.28
260050003	Michigan	Allegan	82.7	86	69.0	71.7	0.54	11.85
261630019	Michigan	Wayne	78.7	81	69.0	71.0	3.13	20.06
360810124	New York	Queens	78.0	80	70.2	72.0	1.73	17.87
361030002	New York	Suffolk	83.3	85	74.0	75.5	1.85	18.94
480391004	Texas	Brazoria	88.0	89	74.0	74.9	0.44	24.02
481130075	Texas	Dallas	82.0	83	69.0	69.9	0.55	24.69
481210034	Texas	Denton	84.3	87	69.7	72.0	0.92	24.69
482010024	Texas	Harris	80.3	83	70.4	72.8	0.28	27.83
482011034	Texas	Harris	81.0	82	70.8	71.6	0.24	25.71
482011039	Texas	Harris	82.0	84	71.8	73.5	0.47	24.67
484392003	Texas	Tarrant	87.3	90	72.5	74.8	1.24	24.38
484393009	Texas	Tarrant	86.0	86	70.6	70.6	0.77	23.79
550790085	Wisconsin	Milwaukee	80.0	82	71.2	73.0	0.82	16.67
551170006	Wisconsin	Sheboygan	84.3	87	72.8	75.1	0.69	17.53

The CAA addresses international emissions directly. Section 179(B) subsection (a) states that:

> Notwithstanding any other provision of law, an implementation plan or plan revision required under this chapter shall be approved by the Administrator if the submitting State establishes . . .that the implementation plan of such . . . would be adequate to attain and maintain the relevant [NAAQS] . . ., but for emissions emanating from outside of the United States.

[13] https://www.epa.gov/sites/production/files/2018-03/contributions_from_updated_2023_modeling__0.xlsx

If a state is able to demonstrate attainment "but for" international transport after adopting all reasonably available control measures, CAA Section 179(B) requires that EPA approve the CAA-required state implementation plan.

Addressing international emissions is important not only to downwind states but also upwind states that are obligated to submit under CAA Section 110(a)(2)(D) Good Neighbor SIPs. As the U.S. Supreme Court in the Homer City case has ruled, it is essential that Good Neighbor states be required to eliminate "only those 'amounts' of pollutants that contribute to the nonattainment of NAAQS in downwind States… "EPA cannot require a State to reduce its output of pollution by more than is necessary to achieve attainment in every downwind State. . ."[14] In addition, the D.C. Circuit has commented that ". . . the good neighbor provision requires upwind States to bear responsibility for their fair share of the mess in downwind States." Slip op at 11 (2012). However, this "mess" seems to be related to international emissions for which upwind states have no responsibility.[15] As the Courts have stated, CAA section 110(a)(2)(D)(i)(I) "gives EPA no authority to force an upwind state to share the burden of reducing other upwind states' emissions." *North Carolina v. EPA*, 531 F 2d at 921.

With so many receptors so very close to meeting the NAAQS requirement even recognition of a portion of boundary conditions as attributable to international emissions would have a significant impact on an upwind states responsibilities in the development of approvable Good neighbor SIPs.

4. EPA should allow the use of either the APCA or OSAT source apportionment technique as an appropriate tool for conducting source apportionment analysis

MOG welcomes EPA's March 27, 2018 memorandum recognizing the proposal that OSAT be considered an appropriate technique to determine source apportionment in the context of determining significant contribution of an upwind state to a downwind monitor. Within the air quality model used by EPA in calculating future year nonattainment, there exist two alternate techniques that can be used in developing source attribution results; the Ozone Source Apportionment Technology (OSAT) and the Anthropogenic Precursor Culpability Assessment (APCA). While EPA certainly believes the APCA technique is appropriate for use in this application, we ask that EPA recognized that the OSAT is also a viable tool for this purpose and provides an already accepted alternative to APCA for any state that would elect to use it.

According to the CAMx model documentation, the OSAT technique provides a robust picture of which emissions sources are contributing to ozone formation because it specifically apportions ozone individually to all source categories, including the "uncontrollable" (e.g., biogenics

[14] 134 S. Ct. at 1608.
[15] 696 F.3d at 14.

in EPA's modeling) component. This allows for a separation of attribution for anthropogenic and biogenic contribution to a downwind monitor's modeled concentration.

Accordingly, we urge that EPA to issue guidance to allow state to use either the APCA or OSAT apportionment method when developing their Good Neighbor SIP submittals.

5. EPA's methodology for selection and management of impact on maintenance receptors should be reconsidered.

EPA's reliance on the CSAPR methodology to address "interference with maintenance" is not only inconsistent with the CAA, but also inconsistent with both the U.S. Supreme Court and D.C. Circuit decisions on CSAPR. Upon consideration of the reasonableness test, EPA's emphasis upon the single maximum design value to determine a maintenance problem for which sources (or states) must be accountable creates a default assumption of contribution. A determination that the single highest modeled maximum design value is appropriate for the purpose to determining contribution to interference with maintenance is not reasonable either mathematically, in fact, or as prescribed by the Clean Air Act or the U.S. Supreme Court. The method chosen by EPA must be a "permissible construction of the Statute." The CSAPR methodology proposed for use in this NODA is not reasonable in its application, resulting in requirements beyond the CAA and therefore must be revised.

The U.S. Supreme Court in *EPA v. EME Homer City* explains the maintenance concept set forth in the Good Neighbor Provision as follows:

> Just as EPA is constrained, under the first part of the Good Neighbor Provision, to eliminate only those amounts that "contribute…to *nonattainment*," EPA is limited, by the second part of the provision, to reduce only by "amounts" that "interfere with *maintenance*," *i.e*. by just enough to permit an already-attaining State to maintain satisfactory air quality."[16]

Relative to the reasonableness of EPA's assessment of contribution, the U.S. Supreme Court also provides,

> The Good Neighbor Provision . . . prohibits only upwind emissions that contribute significantly to downwind nonattainment. <u>EPA's authority is therefore limited to eliminating . . . the overage caused by the collective contribution</u> . . ."[17] (Emphasis added.)

EPA's use of a modeled maximum design value, when the average design value is below the NAAQS, to define contribution, results in a conclusion that any modeled contribution is deemed to be a significant interference with maintenance. This concept is inconsistent with the Clean Air Act and the U.S. Supreme Court's assessment of its meaning.

[16] 134 S. Ct. at 1064, Ftn 18.
[17] Id. at 1604.

As noted by the D.C. Circuit in the 2012 lower case of *EME Homer City v. EPA*, "The good neighbor provision is not a free-standing tool for EPA to seek to achieve air quality levels in downwind States that are *well below* the NAAQS."[18] "EPA must avoid using the good neighbor provision in a manner that would result in unnecessary over-control in the downwind States. Otherwise, EPA would be exceeding its statutory authority, which is expressly tied to achieving attainment in the downwind States."[19] EPA has not justified its proposal as necessary to avoid interference with maintenance.

6. In the development of its guidance to the states, EPA should not give maintenance areas the same weight and status as to nonattainment areas.

EPA should avoid its past practice of giving the same weight to the development of controls programs for maintenance areas as nonattainment areas as it considers the guidance it will provide to the states to address the 2015 ozone NAAQS. Maintenance areas should not be subject to the same "significance" test as is applied to nonattainment areas. Maintenance areas do not require the same emission reduction requirements as nonattainment areas, and therefore, require different management.

In the CSAPR Update rule, EPA again applied the nonattainment area significance test to maintenance areas. The CSAPR Update applies the same weight to the development of control programs to address maintenance areas as it does nonattainment areas. This approach is objectionable both because maintenance areas are not subject to the same "significance" test as applies to nonattainment areas and because maintenance areas do not require the same emission reduction requirement as nonattainment areas.

The U.S. Supreme Court opinion in *EPA v. EME Homer City* offered the following on "interference with maintenance,"

> The statutory gap identified also exists in the Good Neighbor Provision's second instruction. That instruction requires EPA to eliminate amounts of upwind pollution that "interfere with maintenance" of a NAAQS by a downwind State. §7410(a)(2)(D)(i). This mandate contains no qualifier analogous to "significantly," and yet it entails a delegation of administrative authority of the same character as the one discussed above. Just as EPA is constrained, under the first part of the Good Neighbor Provision, to eliminate only those amounts that "contribute . . . to *nonattainment*," EPA is limited, by the second part of the provision, to reduce only by "amounts" that "interfere with *maintenance*," i.e., by just enough to permit an already-attaining State to maintain satisfactory air quality. (Emphasis added). With multiple upwind States contributing to the maintenance problem, however, EPA confronts the same challenge that the "contribute significantly" mandate creates: How should EPA allocate

[18] *EME Homer City v. EPA*, 696 F.3d 7, 22 (D.C. Cir 2012).
[19] Id.

reductions among multiple upwind States, many of which contribute in amounts sufficient to impede downwind maintenance" Nothing in *either* clause of the Good Neighbor Provision provides the criteria by which EPA is meant to apportion responsibility.[20]

The D.C. Circuit opinion in *EME Homer City v. EPA*, also informs the maintenance area issue:

> The statute also requires upwind States to prohibit emissions that will "interfere with maintenance" of the NAAQS in a downwind State. "Amounts" of air pollution cannot be said to "interfere with maintenance" unless they leave the upwind State and reach a downwind State's maintenance area. To require a State to reduce "amounts" of emission pursuant to the "interfere with maintenance" prong, EPA must show some basis in evidence for believing that those "amounts" from an upwind State, together with amounts from other upwind contributors, will reach a specific maintenance area in a downwind State and push that maintenance area back over the NAAQS in the near future. Put simply, the "interfere with maintenance" prong of the statute is not an open-ended invitation for EPA to impose reductions on upwind States. Rather, it is a carefully calibrated and commonsense supplement to the "contribute significantly" requirement.[21]

MOG urges EPA to abandon its current test for "interference" with maintenance and develop an alternative emission reduction approach that accounts for the fact that maintenance areas are already in attainment. EPA cannot reasonably justify the same level of emission reductions as might be called for with respect to nonattainment areas for maintenance areas. EPA does not address the fact that the CAA uses different terms to address maintenance and nonattainment, i.e., "significant contribution to non-attainment versus "interfere with maintenance." EPA improperly implements the terms "significant" and "interference" as being the same and in doing so offers no rationale or legal justification.

EPA's January 17, 2018 brief in the CSAPR Update litigation (*Wisconsin et al. v EPA*, Case No. 16-1406) documents with the following statement on pages 77 and 78 that EPA is ready to concede that a lesser level of control is appropriate in situations not constrained by the time limits of the CSAPR Update:

> Ultimately, Petitioners' complaint that maintenance-linked states are unreasonably subject to the "same degree of emission reductions" as nonattainment linked states must fail. Indus. Br. 25. There is no legal or practical prohibition on the Rule's use of a single level of control stringency for both kinds of receptors, provided that the level of control is demonstrated to result in meaningful air quality improvements without triggering either facet of the Supreme Court's test for over-control. So <u>while concerns at maintenance receptors can potentially be</u>

[20] 134 S. Ct. at 1064, Ftn 18.
[21] EME Homer City v. EPA, 96 F.3d 7, 27 Ftn. 25 (D.C. Cir 2012).

> eliminated at a lesser level of control in some cases given the smaller problem being addressed, this is a practical possibility, not a legal requirement. See 81 Fed. Reg. at 74,520. Here, EPA's use of the same level of control for both maintenance-linked states and nonattainment-linked states is attributable to the fact that the Rule considered only emission reduction measures available in time for the 2017 ozone season. Id. at 74,520. Under this constraint, both sets of states reduced significant emissions, without over-control, at the same level of control. Id. at 74,551-52. Accordingly, EPA's selection of a uniform level of control for both types of receptors was reasonable. Emphasis added.

As an alternative to maintenance monitors being accorded the same weight as nonattainment monitors, we urge that EPA advise the states that no additional control would be needed to address a maintenance monitor if the upwind state can show that either the monitor is likely to remain in attainment for a period of 10 years or that the upwind state's emissions will not increase for 10 years after the attainment date. Such an approach is consistent with Section 175A(a) of the Clean Air Act which provides:

> Each State which submits a request under section 7407 (d) of this title for redesignation of a nonattainment area for any air pollutant as an area which has attained the national primary ambient air quality standard for that air pollutant shall also submit a revision of the applicable State implementation plan to provide for the maintenance of the national primary ambient air quality standard for such air pollutant in the area concerned for at least 10 years after the redesignation. The plan shall contain such additional measures, if any, as may be necessary to ensure such maintenance.

It is also consistent with the John Calcagni memorandum of September 4, 1992, entitled "Procedures for Processing Requests to Redesignate Areas to Attainment", which contains the following statement on page 9:

> A State may generally demonstrate maintenance of the NAAQS by either showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, or by modeling to show that the future mix of source and emission rates will not cause a violation of the NAAQS. Under the Clean Air Act, many areas are required to submit modeled attainment demonstrations to show that proposed reductions in emissions will be sufficient to attain the applicable NAAQS. For these areas, the maintenance demonstration should be based upon the same level of modeling. In areas where no such modeling was required, the State should be able to rely on the attainment inventory approach. In both instances, the demonstration should be for a period of 10 years following the redesignation.

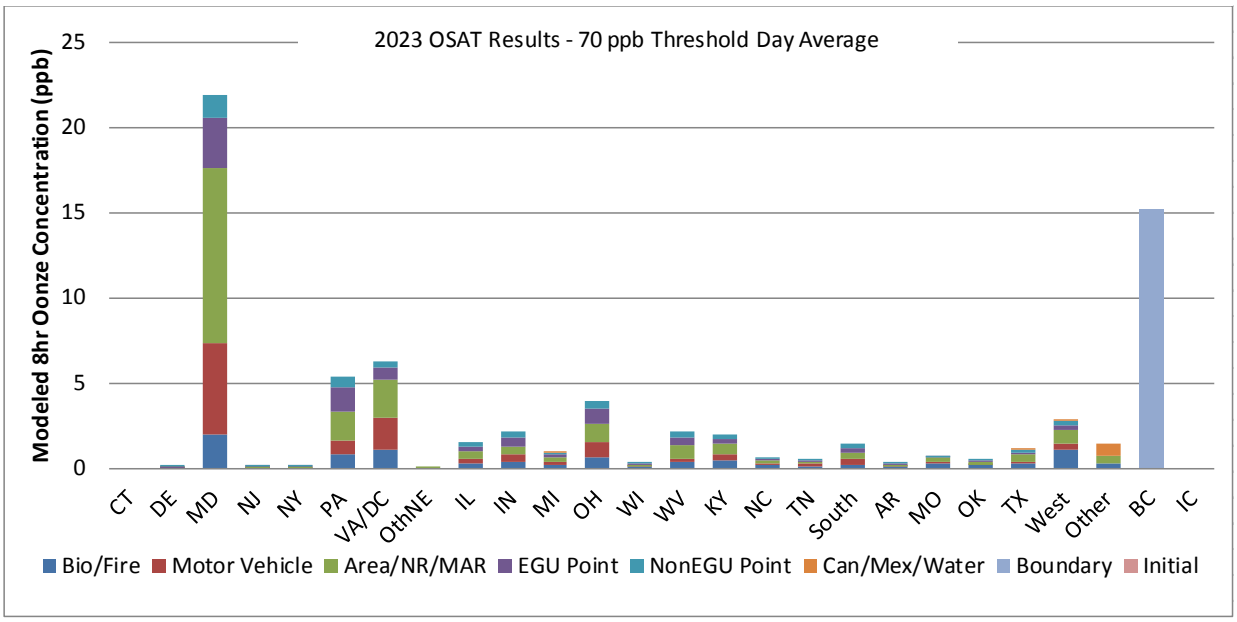
Accordingly, we urge EPA allow this less stringent and effective option for states to respond to maintenance monitors.

7. **To the extent that more than one upwind state contributes to a downwind problem monitor, EPA should allow upwind states to submit a plan that would allow that state to demonstrate either that it has already imposed cost effective controls on its sources or that it is prepared to eliminate its prorate contribution to the portion of the downwind states design value that exceeds the NAAQS.**

MOG is pleased that EPA's March 27, 2018 memorandum recognizes two methods for apportioning responsibility among upwind states to downwind problem monitors. In its memorandum, EPA offers the following statement:

> For states that are found to significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind, apportioning responsibility among states.
>
> - Consider control stringency levels derived through "uniform-cost" analysis of NOx reductions.
>
> - Consider whether the relative impact (*e.g.*, parts per billion/ton) between states is sufficiently different such that this factor warrants consideration in apportioning responsibility.

Addressing these issues is particularly important in the situation in which a state's contribution to a downwind problem monitor is greater than the level at which a monitor exceeds the NAAQS. To avoid unlawful over-control, EPA should provide guidance to states allowing them the option of prorating the reduction needed to achieve attainment over all states that contribute/interfere with that monitor. Such a process would allow an individual upwind state the option of addressing only their prorate portion of responsibility for the portion of the problem monitors ozone concentration that exceeds the NAAQS. This situation is illustrated in the situation set out below involving the Harford MD monitor which when modeling at 12km has a predicted 2023 ozone design value of 71.4 ppb (0.5 ppb above the 2015 ozone NAAQS). In the method described, Kentucky's responsibility, for example, to the Harford monitor would be 0.04 ppb versus its overall contribution to that monitor of 1.54 ppb.



Anthropogenic Contribution (ppb) from 2023 Base Case

CT	0.00		IL	1.23		TN	0.42		BC	15.15
DE	0.07		IN	1.76		South	1.17		IC	0.00
MD	19.90		MI	0.78		AR	0.20		Can/Mex	0.72
NJ	0.09		OH	3.29		MO	0.41		Bio/Fire	9.03
NY	0.13		WI	0.23		OK	0.41			
PA	4.52		WV	1.76		TX	0.80		**Total**	**71.40**
VA/DC	5.18		KY	1.54		West	1.66			
OthNE	0.01		NC	0.47		Other	0.48			

Redlines Reduction Contribution Calculation
Upwind State must achieve less than 0.70 ppb significant contribution or monitor much achieve attainment (70.9 pbb)
Reduction Necessary for Attainment = 0.50 ppb from 71.40 ppb

	Relative Contribution of Significant Upwind States (ppb and %)			**Proportional Reduction Requirement (ppb)**			**Resulting Concentration After Reduction (ppb)**
VA/DC	5.18	25%		0.12			5.06
PA	4.52	22%		0.11			4.42
OH	3.29	16%		0.08			3.21
IN	1.76	8%		0.04			1.72
WV	1.76	8%		0.04			1.72
KY	1.54	7%		0.04			1.50
IL	1.23	6%		0.03			1.20
TX	0.80	4%		0.02			0.78
MI	0.78	4%		0.02			0.76
Total	**20.86**	**100%**		**0.50**			

By proceeding to offer these alternatives approaches for responding to any significant contribution linkage, EPA can minimize the concern over the imposition of prohibited over-control of upwind states.

8. **EPA should not wait for a state to request consideration of exceptional events before acting to exclude them.**

The Clean Air Act and EPA recognize that Exceptional Events have resulted in higher design values for many monitors in both the upwind and downwind states. If not addressed, the use of these higher design values will not only result in unnecessarily stringent, inaccurate nonattainment designations, but also in ultimately higher future year predictions of ozone concentrations and the inaccurate belief that additional control measures are necessary.

EPA's March 27, 2018 memorandum appears to address this situation in offering the flexibility described as follows:

> Consider … whether downwind areas have considered and/or used available mechanisms for regulatory relief.

This is important because we now have state's that have successfully sought EPA approval for excluding consideration of monitoring data influenced by exceptional events and other states that have not done so.

The importance of the need to exclude data influenced by Exceptional Events is recognized by Congress in the provisions of Clean Air Act §319(b)(3)(B) which provides as follows:

> *Regulations promulgated under this section shall, at a minimum, provide that –*
>
> *(i) the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies;*
>
> *(ii) a clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location;*
>
> *(iii) there is a public process for determining whether an event is exceptional; and*
>
> *(iv) there are criteria and procedures for the Governor of a State to petition the Administrator to exclude air quality monitoring data that is directly due to exceptional events from use in determinations by the Administrator with respect to exceedances or violations of the national ambient air quality standards. (Emphasis added.)*

A number of states have already made requests to have the air masses caused by the Canadian wildfires that occurred in 2016 be declared Exception Events – thus allowing monitored data influenced by those events to be excluded from the calculation of the design value for the affected monitor. Among the states submitting these requests are:

Connecticut - The Connecticut demonstration related to the May 2016 event was submitted on May 23, 2017.[22] In addition to showing that Canadian wildfire caused the event, the demonstration noted that ". . . the exceedances of May 25-26th cannot be attributed to EGUs operating on high electric demand days as is more typically the case later in the ozone season." EPA concurred in that demonstration on July 31, 2017.

New Jersey - The New Jersey demonstration related to the May 2016 was submitted on May 31, 2017.[23] In addition to showing that Canadian wildfire caused the event in New Jersey, the demonstration also noted that the event had had a similar impact on many other states including Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania and New York. EPA concurred in that demonstration on October 24, 2017.

Massachusetts - The Massachusetts demonstration related to the May 2016 event was submitted on May 25, 2017.[24] EPA concurred in that demonstration on September 19, 2017.

Maryland – While the Maryland demonstration dated May 26, 2017, nominally addresses July 2016 event, the demonstration report itself includes data which assesses how the design values for Maryland's monitors are affected by both the May and July 2016 events.[25]

Pennsylvania – Pennsylvania has also made a demonstration related to the May 2016 event dated November 2017.[26]

Significantly, several states that have historically had problem monitors have not made similar requests even though these events clearly impact their monitors. Specifically, it appears that New York have elected not to seek any relief at all for the events, while other states have limited their requests to only the May 2016 event and not to the July 2016 event that was identified by Maryland.

It is clear from these demonstrations that the May and July 2016 events were significant and clearly meet the substantive criteria for concurrence by EPA. While the EPA has historically focused on applying Exceptional Event determinations to those monitors that exceed a NAAQS, extending these determinations to all other affected monitors is critical because doing so would assure that all designations are based on appropriate data. In addition, even for monitor whose attainment status is not changed, accounting for these Exceptional Events would lower the design value for that monitor and increase the critical nonattainment value for each monitor (the ozone concentration in the upcoming ozone season that would be high enough to push a monitor into nonattainment). Moreover,

[22] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-connecticut
[23] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-new-jersey
[24] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-massachusetts
[25] http://www.mde.state.md.us/programs/Air/AirQualityMonitoring/Documents/MDE_JUL_21_22_2016_EE_demo.pdf
[26] http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-117484/Ozone%20EE%20Analysis%20May%2024-26-2017.pdf

as we move to modeling a more recent base case the updated 2016 design values would be directly incorporated into that modeling platform affecting the development of Good Neighbor SIPs and any possible transport rules, state 126 petitions or other planning related to the future attainment year. Finally, appropriately updating these design values would provide a more accurate benchmark for determining if and to what extent upwind states would need to reduce ozone precursor emissions related to transport because that obligation ends when a downwind state achieves attainment of the NAAQS at all monitoring locations.

Accordingly, whether or not a state has requested EPA approval of the exclusion of exceptional events, EPA should invoke its own authority to address those events so that upwind states may have the benefit of correct data as they develop and submit their 2015 ozone NAAQS Good Neighbor SIPs

CONCLUSION

MOG very much appreciates the opportunity to offer these additional comments on flexibilities need to allow for the development of approvable good neighbor SIPs.